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A Study of Various Two-Price Systems of Price Support and
Marketing Which Could Be Made Applicable to Rice

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SUMMARY

1. The production of rice in the United States has increased rapidly in recent years, while the rate of domestic consumption has increased but little. At present, farmers in the United States are producing about twice as much rice as is consumed domestically.

In recent years until mid-1953 foreign markets have readily absorbed our exportable surplus. However, since the middle of 1953 competition in export trade has been increasing and world prices have declined to or below the United States support levels. The prospect now is that our exports of rice probably will be greatly reduced if we support our prices and attempt to sell our surpluses at 90 percent of parity.

The rice industry faces the alternatives of drastically reducing its production or of maintaining its foreign markets by selling at prices below the present levels of domestic price support.

2. Rice producers and the rice trade have proposed two major alternatives to the present program which is designed, when marketing quotas are in effect, to support the price of the entire rice crop at 90 percent of parity.

One alternative is some form of two-price arrangement whereby domestic prices would continue to be supported at 90 percent of parity, while exports would sell at a lower price.

The other major alternative is a lower level of price support for the entire rice crop.

3. This report gives major attention to the various two-price arrangements which have been proposed for rice. It explains in some detail the mechanics of operation and the principal administrative problems involved in operating two-price systems. It also discusses the potential economic effects of such systems of marketing.

4. Although in theory a system of two-price marketing would be effective both in maintaining growers' income and in stimulating exports of rice, there would be many practical difficulties in administration. Also, such a system of marketing would cause difficulties in our foreign relations.

5. There are alternatives other than two-price plans by which our rice exports might be expanded. Present legislation gives rice growers little choice other than to curtail acreage sharply so as to be eligible for price support. Congress might consider changing the 50-percent-of-parity alternative to marketing quotas, as contained in the present law, to some higher figure--60, 65, or up to 75 percent of parity--with corresponding liberalization of allotments.

A STUDY OF VARIOUS TWO-PRICE SYSTEMS OF PRICE SUPPORT AND MARKETING WHICH COULD BE MADE APPLICABLE TO RICE

This report is submitted in conformity with Public Law 690, Section 315, which reads as follows:

"The Secretary of Agriculture is directed to make a study of the various two-price systems of price support and marketing which could be made applicable to rice and to submit to Congress on or before March 1, 1955, a detailed report thereon. The Secretary may conduct such hearings and receive such statements and briefs in connection with such study as he deems appropriate."

In undertaking this study, a work group was appointed with representatives from each major agency within the Department having responsibility for some aspect of the rice program. Professor George L. Mehren of the University of California, assisted the work group. At the invitation of the Secretary, representatives of rice growers, processors, and distributors met with officials of the Department of Agriculture on November 10, 1954, to exchange information concerning the rice situation and to discuss alternative programs. Following this meeting, a notice was printed in The Federal Register under date of November 25, 1954 (Appendix B), inviting any interested person to submit a statement or brief to the Secretary before January 1, 1955 suggesting methods of two-price marketing which could be used for rice. The work group had the benefit of a large number of suggestions and proposals made by representatives of the rice industry and by others. Each of the suggestions received was thoroughly considered.

The following report discusses the major choices now confronting the rice industry.

THE SITUATION AND OUTLOOK FOR RICE

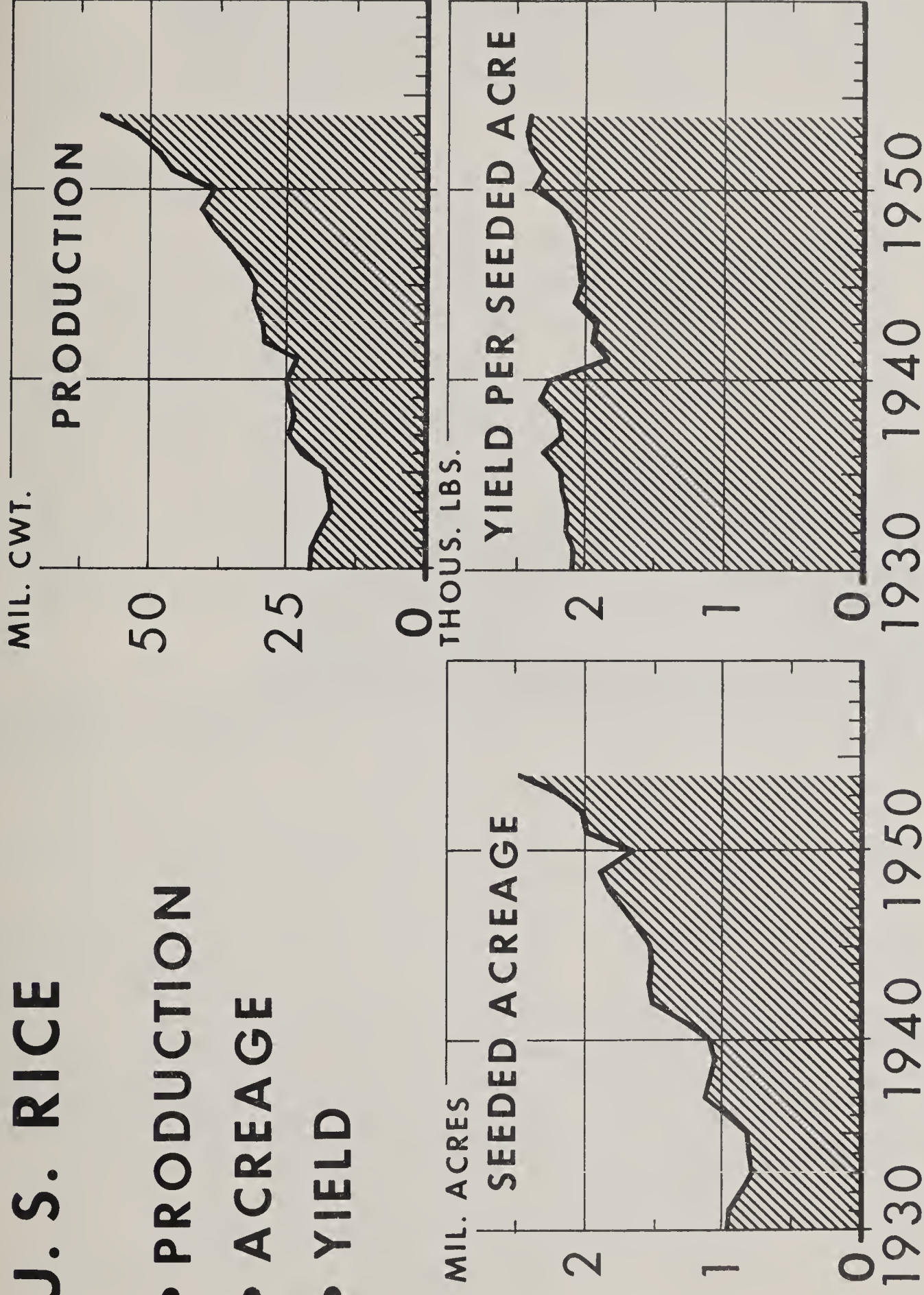
Supply in the United States

Rice production in the United States increased from less than 11 million hundredweight of rough rice in 1914 to 59 million hundredweight in 1954. Just prior to World War II, production was still less than 25 million hundredweight. During and following World War II, owing to shortages of rice in other surplus producing areas and resulting high world prices, production in the United States increased rapidly. However, United States rice production still represents less than 2 percent of the world total.

Sharply increasing acreage and higher yields per acre have contributed to the expanding production. Relative increases in total production have been especially large in California and Texas. Figure 1 and appendix table 2 show acreage, yield, and production, 1930 to date. In recent times, prior to the 1953 crop, carryover stocks had not been excessive. However,

U. S. RICE

- PRODUCTION
- ACREAGE
- YIELD



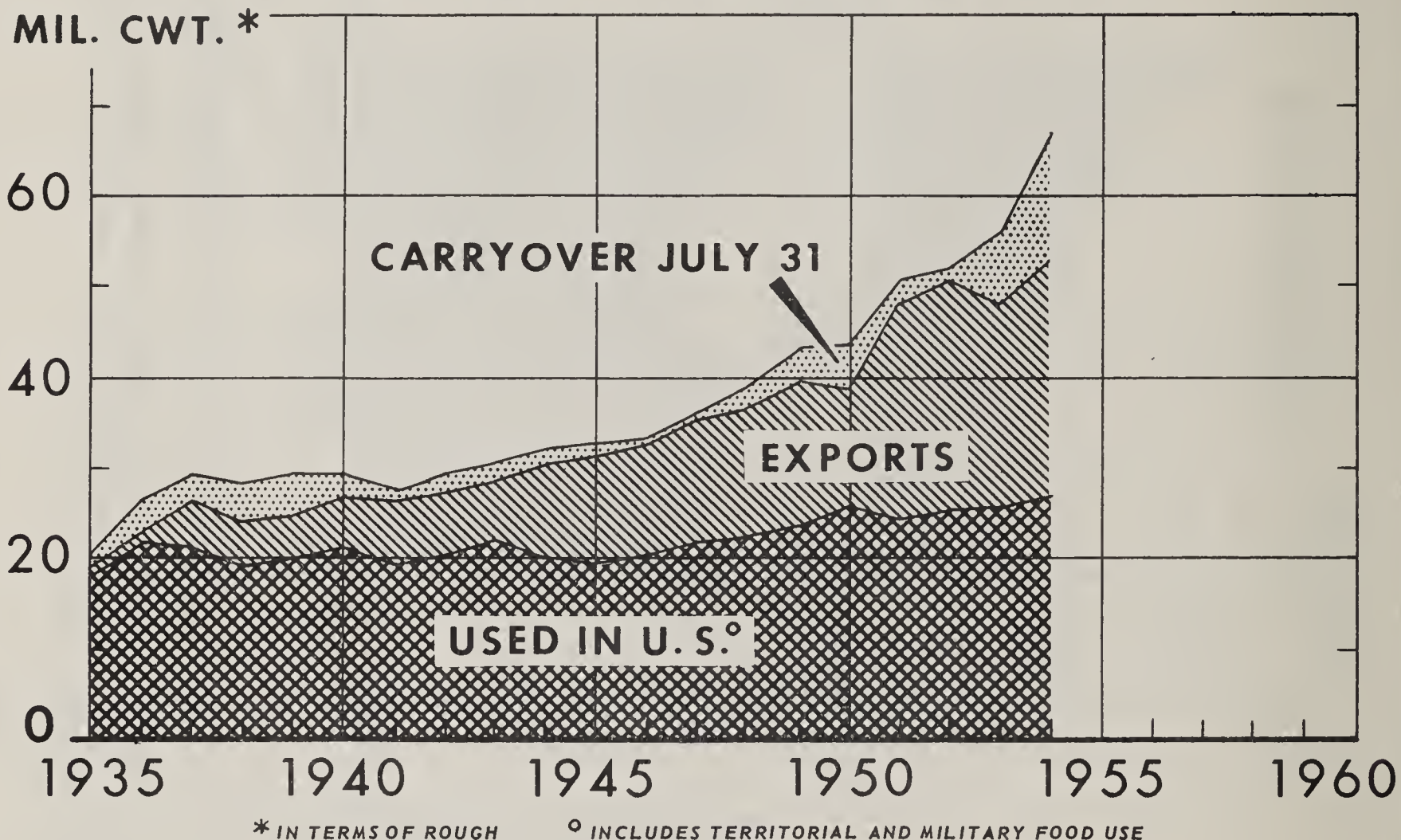
U. S. DEPARTMENT OF AGRICULTURE

NEG. 1407 - 55 (1) AGRICULTURAL MARKETING SERVICE

Rice production in the United States has increased sharply in recent years. The 1954 record crop of 59.11 million hundredweight was about 2-2/3 times as large as the 1935-39 average of 22.43 million hundredweight. This increase reflects a sharp increase in acreage, and some increase in yield per acre.

Figure 1

U. S. RICE DISTRIBUTION



U. S. DEPARTMENT OF AGRICULTURE

NEG. 1408-55 (1) AGRICULTURAL MARKETING SERVICE

Exports of rice from the United States have been increasing since the mid-1930's but the sharpest gain came after the end of World War II. In 1953-54, however, exports declined from the peak reached the previous year and carryover stocks rose substantially. The quantity used in the United States also has increased somewhat in the last 10 years, reflecting both a higher per capita consumption and an increase in population.

Rice supplies in the United States for distribution in 1954-55 are estimated to total about 67.0 million

hundredweight, consisting of stocks on August 1, 1954 of 7.6 million, a crop of 59.1 million, and expected imports of 0.3 million hundredweight. Domestic disappearance, consisting of food, seed, feed, and industrial use, is expected to total about 27.0 million, and exports may total 26.0 million hundredweight. This would leave a carryover on August 1, 1955 of about 14.0 million hundredweight, which is an all-time record and compares with 2.8 million hundredweight, the 1948-52 average.

Figure 2

there was a large carryover from the 1953 rice crop, of which CCC acquired more than 3 million hundredweight of rough rice under the price support program. Indications are that there will be a much larger carryover from the 1954 crop, the major portion of which will come under Government ownership. In view of these heavy accumulations, acreage allotments and marketing quotas had to be proclaimed for the 1955 rice crop, as required by law. Unless expanded export outlets become available for rice, further drastic acreage restrictions will have to be undertaken in the next few years.

Distribution of United States Rice

Domestic consumption of rice, including shipments to the territories, has increased over the past 40 years from about 16 million hundredweight of rough rice to about 26 million hundredweight at present. This increase has resulted largely from the rise in population rather than from an increase in per capita consumption. Domestic consumption at present accounts for slightly less than half of the United States production. In recent years, exports have accounted for about half of the United States production. United States exports amounted to about one-sixth of the total international trade in rice, with this country being the third largest exporter of rice. Appendix table 3 shows the supply and distribution of United States rice, 1935-54, and figure 2 shows distribution. Appendix table 4 shows the relative importance of the world exporters and importers and compares world trade by countries in 1953 with the 1936-40 average.

Prior to World War II, Cuba was our largest export market for rice, taking more than two-thirds of our total exports. While Cuba now takes even more United States rice than prewar, its purchases now make up less than one-third of our current rice exports. During the last few years, a major portion of our rice exports has gone to the Asian areas. Japan is now taking the major part of our rice exports and apparently offers the best prospect as a continuing volume market in the Far East. Appendix table 5 shows United States exports of rice by country of destination, averages for 1940-50, annual for 1951-53.

World Trade

World trade in rice is presently in a transitional stage. For 7 years after World War II, there was a great scarcity of rice and a corresponding rise in prices. The limited availability of export supplies and the high prices of rice resulted in a significant shift of consumption to substitute cereals, principally wheat. In 1952, the world rice situation began to change, and export supplies have become more abundant. This change from a severe scarcity has generally been brought about by two factors: unusually favorable weather conditions for an extended period throughout all rice areas, and expanded acreage planted to rice both in importing and in exporting countries.

Other factors have tended to offset to some extent gains in acreage and increases in yield. The populations of the principal rice areas of Asia have been increasing and will continue to increase for some time at

a more rapid rate than rice production. This has reversed somewhat the prewar flow of rice from Asia to the rest of the world. In 1953 the rice crop in Japan was the poorest in several decades. At the same time, the Government of India embarked on a program to build up heavy Government stocks of rice. What has been rather widely considered a surplus of rice in Asia throughout 1954 consisted largely of residual stocks of extremely low quality rice, difficult to move in trade even at price concessions. These surplus stocks of poor quality and low acceptability became a depressing factor on world markets, although there was no surplus of good quality rice and, in the case of certain types, even a continuing shortage.

World Prices

The price of rice in world trade began to move downward in the fall of 1953 from the record levels of 1952-53. By May 1954, prices were in some cases 20 percent below the levels of the previous year. However, it cannot be said that a world-wide market in rice actually exists on a commercial basis. In the case of each of the two largest exporters of rice, as well as the largest importer, all decisions regarding price policy and foreign trade are made by one single Government authority. In many other countries similar conditions exist in varying degrees. In 1937 rice made up 88 percent of total cereal imports, while by 1953 rice imports had fallen to 31 percent, because of rice scarcity and less favorable price relationships. In this period, prices paid for imported rice increased twice as much, percentagewise, as the prices for competing cereals.

Outlook for World Trade and Price

The outlook for world trade in rice depends not only on the extent to which production will be sufficient to take care of the continuous gains in population, but also on the future price relationship between rice and other cereals. Over half of the world's population has in the past been dependent on rice. Much of the recent shift toward the consumption of cereals other than rice seems to be explained by conditions of supply and relative prices rather than a change in diet preference of large masses of the world's population.

With large stocks of other cereals throughout the world and a continuing high level of production, no material advance in rice prices is in prospect. Rather, world prices may be expected to trend downward over the next few years, unless unfavorable weather reduces production in principal rice-producing areas. Many of the smaller sources of exports that have come into being in the period of high prices for rice may not continue producing for export at lower world prices. Similarly, importing countries having subsidized domestic production of rice during the same period may not continue such support at current world price levels. Also, if world rice prices continue to decline, the volume of trade may be expected to rise in relation to world exports of other cereals, other factors being equal.

A great deal of emphasis is being placed on improving nutrition standards, particularly in those countries dependent on rice for a major part of their diet. There is considerable potential for such improvement to increase absolute amounts of food consumed where the per-capita caloric intake is low. Although the final effect of rising standards of living tends to reduce the amount of cereals in the human diet, this is a long way off in the deficit rice areas. For example, standards of living are slowly rising in Asia, and this may be depended upon to increase demands on rice for some time to come. Such adjustments will be gradual and probably will be accompanied by a rising demand for animal feeds, which would provide outlets for low-grade rice and byproducts of the rice-milling industry.

Considering an inevitable long-time rise in demand for rice, because of growing populations and rising standards of living, there will be a continuing need for larger rice supplies throughout the major world markets. The long-time trend in rice prices will, of course, depend upon whether supplies expand more rapidly than effective market demand.

Price Support Programs

Average prices received by farmers for rice in the United States have equaled or exceeded support price levels in every year since the support programs were started in 1941, except for the crops in 1951, 1952, and 1954. Prices above loan levels resulted from exports sufficiently large to move the increased production from expanding acreages. Rice support levels are very favorable compared with other commodities, reflecting the higher level of the modernized parity as compared with the "old" parity. Appendix table 6 shows the annual loan rate and the season average price, as well as quantities owned by CCC, and placed under support and delivered to CCC, 1941 to date.

With prices to growers in the current season below support levels, over 19.2 million hundredweight of the 1954-crop rice had been placed under loans and purchase agreements through January 15, 1955, and additional quantities were placed under price support before the expiration on January 31, 1955. Thus, about one-third of the 1954 crop was under price support on that date.

If production in the United States continues to exceed quantities which can be disposed of under present price support programs, large stocks will accumulate in CCC hands and present an increasingly difficult disposal problem.

Outlook for United States Rice

With the potential of a rapidly increasing population in rice-consuming areas and with the current readjustment that is taking place in world rice prices, there appears to be a dependable market for United States rice in world trade, provided that such rice can compete on a price basis in those portions of the world market which are accessible to and adapted to our production. However, world rice prices have declined in recent months to a level below the equivalent of our price support, except that demand for some qualities and varieties has been strong enough to hold their prices at about domestic support levels.

On the basis of our relatively high support level for rice and the likelihood that world rice prices will tend to decline in the next few years, it appears that a further sharp reduction in acreage will be called for unless some program is devised whereby large quantities of United States rice can move into export channels at prices below the support levels provided for rice by existing legislation when marketing quotas are in effect. Rice acreage allotments for 1955 are 24.7 percent below the 1954 rice acreage, and it is possible that further reductions may be required in future years. If we are unable to compete price-wise on the world market for volume exports, particularly to the Far East, the reduction in acreage as compared with 1954 may be greater in later years. This would be the prospect even if we are able to hold our Cuban market and other export markets for premium quality rice.

PRESENT GOVERNMENT PROGRAMS AFFECTING RICE 1/

Acreage Allotments and Marketing Quotas

Under existing legislation, acreage allotments for rice are required to be **announced** not later than December 31 each year unless suspended by the Secretary of Agriculture because of a national emergency or a material increase in export demand. Also, the Secretary is required to proclaim, not later than December 31, marketing quotas for rice for the following crop year whenever in any calendar year he finds that the total supply of rice for the marketing year beginning in such calendar year will exceed the normal supply for that marketing year by more than 10 percent. On December 29, 1954, the Secretary proclaimed a national rice acreage allotment of 1,859,099 acres and marketing quotas for the 1955 rice crop based on this acreage. This acreage is 24.7 percent below the 1954 acreage and about 11 percent below the 1950-54 average. (See appendix table 1.) In a referendum on January 28, 1955, rice producers approved marketing quotas for the 1955 crop by more than the necessary two-thirds vote of those voting.

Determination of Acreage Allotments

The national rice acreage allotment is that acreage which will produce a crop which, together with the carryover, will be not less than the normal supply. Normal supply for any marketing year is defined as the estimated domestic consumption for the marketing year ending just prior to the marketing year for which normal supply is being determined, plus the estimated exports for the marketing year for which normal supply

1/ Present Government programs affecting basic agricultural commodities, which include rice, are conducted primarily under the following legislative authorities:

- (1) The Agricultural Adjustment Act of 1938.
- (2) The Agricultural Act of 1949.
- (3) The Agricultural Act of 1954.
- (4) The Agricultural Trade Development and Assistance Act of 1954.

is being determined, plus 10 percent of such consumption and exports. In determining normal supply, the Secretary is permitted to make such adjustments for unusual conditions, and for current trends in consumption as he may deem necessary. There is no minimum national acreage allotment for rice. The method required by law for determining the national acreage allotment for rice, as applied to the 1955 crop, is given in detail in Appendix C.

The national acreage allotment, less a reserve of not to exceed 1 percent ^{2/}, is apportioned to States on the basis of the acreage seeded for and diverted from the production of rice during the preceding 5 years, with adjustments for trends in acreage during this period. The State allotments are apportioned in two ways. In States where the rice acreage allotments for farms are determined on the basis of past production on these farms and other factors, the State allotment, less (1) a reserve of not to exceed 3 percent for "new" farms, and (2) a reserve not to exceed 5 percent for making adjustments in county allotments for trends in acreage and for abnormal conditions affecting planting, is first apportioned to counties. In States where farm acreage allotments are determined on the basis of past production of rice by producers on farms and other factors, the State acreage allotment, less the reserve for "new" producers, is apportioned directly to producers and allocated to farms. County allotments are apportioned to individual farms on the basis of past acreage of rice, taking into consideration acreage allotments previously established; abnormal conditions affecting acreage; land, labor, and equipment available for production of rice; crop-rotation practices, and the soil and other factors affecting the production of rice. Where the State allotment is apportioned directly to producers and allocated to farms, the same factors are used, except that the past production of rice by the producer and the acreage allotments previously established for the producer are substituted for past production of rice on the farm and previous farm acreage allotments. Appendix table 7 shows rice acreage allotments for 1955 compared with acreage planted in 1954.

Under the provisions of the Agricultural Act of 1954, a farmer may bring his farm into compliance with his farm acreage allotment by adjusting any excess rice acreage to the allotment. A farmer who does so adjust the excess acreage will be in compliance and not be subject to marketing quota penalties.

Marketing Quotas

The method used to determine the level of total supply at which marketing quotas are required to be proclaimed for the 1955 rice crop is given in detail in Appendix D. It will be observed that the marketing year used to determine normal supply in the marketing quota determination is different from that used in the acreage allotment determination.

^{2/} Reserve to cover old farms with inadequate allotments because of insufficient State or county allotment or because rice was not planted on the farm during all of the preceding 5 years.

Generally speaking, the marketing quota for an individual farm is the quantity of rice produced on the farm acreage allotment. If the farm acreage allotment is exceeded, a "farm marketing excess" is determined. This is computed, in terms of hundredweight, on the basis of the normal production on the excess acreage. However, in no case may the farm marketing excess be larger than the amount by which the actual production of rice on the farm exceeds the normal production of the farm acreage allotment.

The producer who has a farm marketing excess is subject to a penalty on the excess equal to 50 percent of the parity price per pound of rice as of June 15 of the calendar year in which such crop is produced. A producer may postpone or avoid the payment of the penalty by storing the farm marketing excess in accordance with regulations issued by the Secretary or by delivering such excess to the Secretary for disposal. Until the farm marketing excess is stored, delivered, or the penalty paid, a producer's entire crop of rice is subject to a lien in favor of the Government for the payment of the penalty. The purchaser is required to pay the penalty, although he may deduct an amount equivalent to the penalty from the price paid to the producer.

When producers disapprove of marketing quotas for rice, the level of price support to cooperators is reduced to 50 percent of the parity price. When marketing quotas are not in effect, producer compliance with acreage allotments is entirely voluntary, and no penalties are involved by non-cooperation. However, only those producers who do not exceed their farm rice acreage allotments are eligible for price support. Also, harvesting of excess acreage affects producers' eligibility for ACP payments.

Levels of Price Support

In accordance with the Agricultural Act of 1954, price supports will be available to eligible rice growers for the 1955 crop at a level between 82-1/2 and 90 percent of parity, since marketing quotas were approved by the producers. For subsequent years the support level will be between 75 and 90 percent of parity, as provided in the Agricultural Act of 1949. The level of price support for the 1955 crop, on the basis of the current estimates of supply for the 1955-56 marketing year and anticipated producer compliance with marketing quotas, is expected to be 90 percent of parity, or close to it. Appendix E shows the method used in making this determination.

Under the Agricultural Act of 1949, as amended, the Secretary is required, insofar as practicable, to announce a level of price support for rice in advance of the planting season. This announced level must be based on the latest information and statistics available to the Secretary at the time of the announcement, and cannot exceed the maximum level of price support. The Secretary cannot reduce the level of price support at the time of making the final announcement at the beginning of the marketing season in August, even though later data indicate that the preliminary support level was too high.

The schedule of flexible support prices provides for minimum levels of support which the Secretary is directed to make available to producers, the support level depending on the ratio of the estimated total supply--as of the beginning of the marketing year for which the level of price support is determined--to the normal supply. Total supply is the carryover at the beginning of the marketing year, plus the estimated production and imports. Normal supply as used in price support determination is the estimated domestic consumption for the marketing year ending immediately prior to the marketing year for which the level of price support is being determined, plus the estimated exports for the year for which the level is being determined, plus an allowance for carryover of 10 percent of the sum of such domestic consumption and exports.

If the estimated total supply does not exceed the normal supply as of the beginning of the marketing year by more than 2 percent, the level of price support must not be less than 90 percent of parity. For every 2 percent excess of the total supply above 102 percent of the normal supply, the minimum level of price support is reduced by 1 percent but not below 75 percent.

However, flexibility of support prices for rice is illusory to a large extent. The reason is that production resulting in a total supply in excess of "normal" supply is required to be continuously readjusted by yearly acreage allotments to restore a "normal" supply situation at which price support at 90 percent of parity can be made available to producers. Since price support is available only to cooperators--that is, to producers who comply with their farm rice allotments --levels of price support lower than 90 percent of parity will largely reflect the estimated extent of non-compliance with acreage allotments.

With marketing quotas in effect, producer compliance with allotments is enforced, and the national rice acreage allotment is required to be determined so as to make available a total supply which can be moved into domestic consumption and exports with support levels at 90 percent of parity.

Thus, when marketing quotas are in effect, producers have no choice of price and production policies except between a 90-percent-of-parity support at the expense of a lower volume of production, or a 50-percent-of-parity support to cooperators and no marketing quotas. Since producer disapproval of marketing quotas implies unwillingness to comply with allotments established for 90-percent-of-parity price supports, and since price support at 50 percent of parity would be available only to producers complying with such allotments, the alternative to marketing quotas under present legislation is, in effect, the forfeiting of all price support.

Government Programs for Expanding Market Outlets

Three Government programs have been approved to expand outlets for United States rice in the 1954-55 season. These programs have thus far authorized the movement of approximately 3 million hundredweight into commercial markets and for relief purposes:

The first program involves the sale of rice for foreign currency under Title I of Public Law 480, the Agricultural Trade Development and Assistance Act of 1954. This law provides a means whereby surplus agricultural commodities in excess of usual marketings may be sold through private trade channels and foreign currencies accepted in payment thereof. This authorizes the CCC to use its funds and commodities for carrying out the purposes of the Act during a 3-year period. Transfers are limited to those quantities which would require a reimbursement to CCC of not in excess of 700 million dollars for all commodities.

The authority for transferring about 300,000 hundredweight of CCC-owned milled rice for foreign relief purposes has been granted under Title II of PL 480. Title II authorizes the use of CCC stocks of surplus agricultural commodities to meet famine or other urgent relief requirements in foreign countries. The authority, which remains in effect through June 30, 1957, permits transfers of not to exceed 300 million dollars. To February 1, 1955, disposition of rice under this title totaled 291,000 hundredweight, consisting of 44,000 hundredweight to Haiti, 4,000 hundredweight to West Germany, 5,000 hundredweight to East Germany, and 238,000 hundredweight as Christmas packages.

The third program provides for the donation of not more than 200,000 hundredweight of CCC-owned milled rice to domestic agencies eligible to receive such commodities under Section 416 of the Agricultural Act of 1949, as amended. Section 416 authorizes donation of foods acquired under price support for domestic purposes as well as for foreign relief purposes when necessary. This is to prevent waste before these foods can be disposed of through normal domestic channels without impairment of the price support program or sold abroad at competitive world prices. Domestic agencies eligible to receive rice donated under this program include State, Federal or private agencies for use in nonprofit school lunch programs, the assistance of needy persons, and charitable institutions, including hospitals, to the extent that needy persons are served.

On January 12, 1955, announcement was made that up to 140,000 hundredweight of rice acquired by CCC in price support operations will be offered for donation for domestic use only in non-profit school lunch programs and welfare use, as authorized by Section 416.

Export Prices of Other Grains

United States wheat, including flour (both within and outside the IWA) is at present made available for export at prices below domestic market prices. This is done because of the competition of low-priced wheat from other exporting countries. Other grains such as sorghums, barley, and rye have been made available at moderately reduced prices for export. Importing countries have substituted for part of their rice requirements, wheat and some other grains that can be obtained more cheaply from a number of countries.

THE PRINCIPLE OF TWO-PRICE MARKETING AND ITS ADAPTABILITY TO RICE

A two-price plan divides the total market into two parts, commonly called the primary and secondary markets, charging a higher price in the primary market and a lower price in the secondary market. Such programs may attempt to get a larger income either from a given amount of the commodity produced and sold, or from an increase in total production and consumption. Either of these results may be obtained when the demand in the primary market is relatively inelastic and the demand in the secondary market is relatively elastic.

This report is concerned only with two-price plans designed to increase returns to producers by high-level price protection in the domestic market and expanded production for export at free-market prices. Price arrangements of this kind differ significantly from such "two-price" policies as, for example, the present programs under which wheat is sold in export markets at prices below the U. S. support level. Under such arrangements the support price available to producers applies to the entire crop, and the Government absorbs the loss on exports. Although such systems of marketing have been proposed for rice, in effect, they are programs of export subsidization rather than two-price marketing systems and, therefore, not considered in this report.

In the case of rice, the demand in the domestic market is known to be inelastic; that is, rice consumption is not increased significantly by lower prices nor is it decreased significantly by higher prices. The demand for rice exports from this country is considerably more elastic. Also, the export market absorbs about half of our rice. In this situation, if an acceptable two-price plan for rice can be developed, it could be expected to increase returns to growers through expanded markets without the need for Government subsidization.

Based on observations since 1935, a coefficient of elasticity of domestic demand for food in continental United States of .5 was determined; that is, it was found that, on the average, and other factors being equal, a decline of 2 percent in price to growers was associated with an increase of 1 percent in continental per capita food consumption. The degree of elasticity of food consumption in the Territories of the United States, which might be projected into the future, is not determinable at this time. While consumption in the Territories has increased since World War II, it had declined from 1937 to 1946. Consumption in the Territories constitutes about 30 percent of the total continental-territorial food consumption. In the analysis which appears in a later section of this report, domestic territorial disappearance which includes brewer's, seed and feed use, as well as food use, is assumed to have a demand elasticity of about .3. Total and per capita food consumption in continental United States, and shipments to U. S. Territories, are shown in appendix table 8.

It is not possible to determine a statistically acceptable measurement of the elasticity of demand for U. S. rice in export trade under existing conditions. If it were not for the fact that other cereals have been substituted for rice in the areas usually and traditionally dependent upon rice as their basic food item, the degree of elasticity would be more clearly discernible. During the period that rice production was making adjustments for the dislocations caused by the war, world production of other cereals went ahead so rapidly that surpluses resulted which were readily available at prices cheaper than rice and provided substitutes for rice. Tonnage losses in rice consumption were tremendous. By the end of 1954, although world production of rice exceeded prewar levels, the export volume of rice was only a little more than half of the prewar average.

In prewar years the average annual rice trade was about 9 million tons, while in 1954 it is estimated to have been only slightly over 5 million tons. The difference of about 4 million tons implies a high degree of elasticity. This indicates that it might be possible within a few years to expand the rice market with downward adjustments in prices. This increase, however, might be only in the neighborhood of 1 million tons, or about 20 percent. To consider a much larger increase would not be practical because of the effect of such factors as changes in diets which may have taken place in the past 2 decades or so, and the effects of slowly rising levels of income.

In the analysis of the comparative impacts on domestic and export sales and prices to producers under different programs presented in this report, the indicated export quantities associated with the different price levels represent rough estimates based both upon statistical analysis and upon the judgment of U. S. Department of Agriculture marketing specialists who are most familiar with the demand for rice at home and abroad.

The adaptability of rice to a system of two-price marketing is a development associated with the change in the pattern of market outlets for U. S. rice in the postwar period and, particularly, in the last 4 or 5 years. Prior to the war, more than 86 percent of the total annual disappearance of U. S. rice was accounted for by domestic consumption. The inclusion of exports to Cuba increased the portion moving into the "primary" market to more than 95 percent. Obviously, with only an insignificant percentage of the U. S. rice crop exported to countries other than Cuba, income to producers could not have been increased significantly by any two-price system.

It was not until 1945 that the Asian markets developed for U. S. rice and not until 1951 that these new export markets began to exceed exports to Cuba. Since 1951, about half of our rice production has been moving into domestic consumption, about 15 percent has been exported to Cuba, and the remaining 35 percent has been shipped mainly to Asian countries. The changes in the percentages of the annual disappearance of U. S. rice in the different market outlets in the last marketing year as compared with the 1935-39 prewar period are shown in appendix table 4.

Thus, it is apparent that the current interest on the part of U. S. rice producers and the trade in systems of two-price marketing arises as a result of relatively recent changes in the pattern of market outlets for U. S. rice. Also, it is clear that the feasibility of two-price marketing would also depend on the maintenance of the present pattern of marketing in the years ahead.

The two-price plans which have been proposed for rice (and those proposed for other commodities but which may be adapted to rice) are all based on the principle of discriminatory marketing as between separable markets of different demand characteristics. However, the plans differ greatly in the mechanics of operation and in the extent of Government activities and controls necessary to enforce separation of markets with respect to price.

Under a two-price arrangement the Government would have little or no responsibility for fixing prices, for purchasing surpluses, nor for managing stocks. Prices would be determined in the market at levels that would equate supply and demand. This does not mean, however, that the prices and production would be the same as in a free competitive market without a two-price arrangement. Actually, production probably would be higher, and prices in the secondary market would be lower.

Although domestic consumers, under the operation of two-price systems, are required to pay a higher price for rice than foreign consumers, the price objective in the domestic market is no different than that of the programs operated under present legislation, which aim at the attainment and maintenance of parity prices to producers by means of price supports at 90 percent of parity. The flexible price supports of the Agricultural Act of 1949, as amended by the Agricultural Act of 1954, provide, in effect, for price supports for rice lower than 90 percent of parity only when marketing quotas are not in operation. Even then, the lower support levels largely would reflect the anticipated extent of non-cooperation of producers with allotments which, under flexible price supports, are determined so as to result in a supply which can be disposed of with 90-percent-of-parity price support in effect, just as they were determined under the rigid, high-level price supports of previous legislation.

All two-price systems impose, directly or indirectly, a levy (tax, penalty) at some stage of marketing. It is this feature which has aroused much controversy in considering the domestic acceptability of such marketing systems. Also, the legality of such levies has been questioned in the light of the Supreme Court's invalidation of the processing tax provisions contained in the early Agricultural Adjustment legislation. However, the processing tax embodied in that legislation was held unconstitutional because of its aim to regulate agricultural production, which the court stated was a matter wholly within the powers reserved to the States under the Constitution. To the extent that the levies involved in specific two-price marketing plans have no such aim, questions as to the constitutionality would appear to be unaffected by this Supreme Court ruling.

Most two-price plans for rice include, or are assumed to include, Cuba in the "primary" market by reason of the preferential tariff status of United States rice in Cuba, which is based on reciprocity and the interest of Cuban rice producers in maintaining a high level of returns for her own rice producers.

From the standpoint of reciprocity, Cuba could be expected to accept, under the operation of a two-price system, the maintenance of our rice export price at 90 percent of parity and the sale to other countries at a lower price. Such a differential would parallel the price differential now enjoyed by Cuban sugar in the United States. From the standpoint of Cuban producers, maintenance of our export price at 90 percent of parity would be an indirect price protection. If deprived of this protection by exclusion of Cuba from the "primary" market under a two-price system in the United States, Cuban producers would undoubtedly press for protection against imports of United States rice at prices competitive with oriental markets.

Though most of the two-price plans proposed for rice consider Cuba part of the primary market, such consideration presupposes that existing rice trade and price policies on the part of Cuba would be maintained under conditions of increased availability of rice in export trade at declining prices. Also, Cuban rice acreage may be expected to increase somewhat further. If present Cuban trade and price policies with respect to rice could be depended upon to be maintained under such conditions, the question of constitutionality of what may be construed as a tax on exports would have to be dealt with in extending the principle of discriminatory marketing to exports in the manner proposed in most of the two-price plans for rice. It would be necessary, in view of the prohibition contained in Article I, Sec. 9, clause 5, of the United States Constitution against taxes or duties on exports, to consider the decisions of the courts in interpretation thereof.

TWO-PRICE PLANS FOR RICE

The various two-price plans suggested for rice may be classified as variants of two major types of proposals, differing principally in the manner in which producers obtain high unit-returns in the primary market:

(I) Through differential payments to producers and corresponding payments by primary users or (II) discriminatory marketing devices applied directly by producers.

I. Plans Involving Differential Payments to Producers

A. The Fixed-value Marketing Certificate Plan

1. Principal Provisions

The plan, originally designed for wheat but considered by many as more adaptable to rice, provides for returns at 90 percent of parity in the primary market in the following manner:

a. Issuance of Certificates to Producers

(i) The Secretary of Agriculture would determine each year prior to the beginning of the rice marketing year the amount of rice estimated to be used domestically and exported to Cuba, and proclaim such amount as the "national marketing allotment" for rice.

(ii) The national marketing allotment, so proclaimed, would be apportioned to the States and counties on the basis of production history, and the county allotments would be apportioned to the individual farms by the same procedure as used for establishing farm rice acreage allotments under present legislation. Thus, each rice producer would share in the national marketing allotment (for which returns at 90 percent of parity are to be assured) in the same ratio as his "normal" rice production bears to the national production of rice.

(iii) Marketing certificates would be issued to each rice-producing farm, covering a specified amount of rice equal to the marketing allotment established for such farm.

(iv) The per-hundredweight value of each certificate, determined and proclaimed by the Secretary in advance of the marketing year, would be the difference between 90 percent of parity and the estimated average price received by producers for rice during the marketing year. These fixed-value certificates would be issued to producers in the form of negotiable drafts on the CCC.

b. Acquisition of Certificates by Processors and Exporters

(i) All processors making first sales of milled rice in the primary market from either domestic or imported rice, and all importers of milled rice would be required to purchase certificates from the U. S. Treasury covering the rough rice equivalent of such sales or imports. The cost per hundredweight of these certificates would be the same as the unit of the certificates issued to producers, that is, the difference between the estimated average farm price of rice for the marketing year and 90 percent of parity, as determined by the Secretary.

Upon the exportation to countries other than Cuba of any milled rice with respect to the first sale of which certificates had been purchased, the exporter would be reimbursed the cost of the certificates covering such exports.

(For more effective administrative control, certificates may be required to be procured on all first sales and imports of milled rice, and upon proof of exportation to countries other than Cuba the cost of the certificates covering such exports would be abated to the exporters.)

(ii) The funds so collected from processors and exporters would be paid into the Federal Treasury, while the certificates issued to producers would be paid out of general appropriations, as is being done under the sugar payment system of the Sugar Act, the constitutionality of which has never been challenged.

(iii) The cost of the certificates to processors of rice for domestic consumption and export to Cuba, added to the cost of the rice purchased by such processors and exporters at competitive market prices, would equalize the estimated difference between average market prices and 90 percent of parity for the portion of the U. S. rice crop marketed for consumption in the United States or exported to Cuba.

2. Economic Comments

a. The economic effect of the plan would be to insure producers high-level returns for an allotted major portion of their normal rice production without the need for crop loans, export subsidies, or acreage controls. A loan program may be made available, either at a relatively high level limited to the allotted portion of the crop, or at a low level for the entire crop, so as to encourage orderly marketing. Such a program, however, would be supplementary and not a necessary concomitant of the plan. (Most of the proposals submitted to the Department by the rice industry recommended 90-percent-of-parity loans on the certificated portion of the crop to insure orderly marketing.)

b. Although producers would receive a larger total gross income than could be obtained from marketing the entire rice crop at free market prices, the benefits derived from the price protection afforded in the primary market would in time be at least partly dissipated in price competition in the unprotected secondary export market. Low-cost producers could be expected to expand their output. Also with the producers' share in the primary market determined on the basis of farm production history, producers who do not expand production above their allotment would receive, over a period of years, a smaller and smaller allotment, as a declining percentage of the crop allotted to the primary market would be uniformly applied to all producers. On the other hand, producers having no previous history of rice production would have practically no initial share in the primary market and thus may be deterred from becoming "new" rice producers.

To check a tendency towards overproduction set in motion by the ability of producers generally to accept a lower price in the secondary market than they would be willing to produce

for under free market prices for their entire crop, and to maintain equitable production bases for primary market allotments, it may not be desirable to dispense with the system of acreage allotments in effect under present legislation. Compliance with individual farm rice acreage allotments might have to be considered as a condition of producer eligibility for receiving marketing certificates.

However, such allotments designed to restrain competition in the secondary market and to insure to the individual producer equitable access to the primary market, would be far less restrictive than under present legislation where the function of acreage allotments is to adjust production to market outlets at prices reflecting price support at 90 percent of parity.

c. The attainment of 90-percent-of-parity returns in the primary market would depend on the accuracy with which average prices received by producers are estimated in advance of the marketing year. Errors in such estimates would be reflected in certificate values to producers and certificate costs to processors and exporters for the primary market being too high or too low, respectively, to assure producers 90 percent of parity for their allotted share in the primary market. Also, surplus or deficit funds would result after completion of sales and purchases of certificates by producers and by processors and exporters, respectively.

Adjustments for such errors and for excess or deficit funds could be made in determining the quantity and unit-value of the certificates to be allotted to producers in the next succeeding year. Over a period of years, returns to producers in the primary market could be expected to average at the price objective. However, the errors could be large for any one year, since the determined differential would be based on estimates of world production, prices, and other market factors made in advance of the marketing year.

d. Since the marketing certificates would be issued to producers ahead of harvest time, the proceeds from their sale would help producers to finance their operations during the high-expense season, thus minimizing the need for a supplementary loan program. Also, the certificates would serve to some extent as insurance against low crop yields, because the amount of certificates allotted to each farm for a given marketing year on the basis of relative base-period production would be unaffected by the actual volume of production in that marketing year. This feature of the plan would make it possible for producers with a farm rice production history to receive differential payments without having grown any rice in the crop year for which the differential payments are made. However, objections to this could be overcome by limiting the issuance of marketing certificates to the actual production up to the established farm marketing allotment.

e. The fact that the value of the certificates would be fixed should provide incentives to the production of premium quality rice and encourage more efficient marketing methods and practices. That is, the producer would receive the market price plus a fixed value for the certificate. To get the highest possible market price, he still would have to do a good job of quality control and marketing.

3. Administrative Comments

a. The functions and responsibilities of Government would consist of estimating primary market requirements, apportioning the primary market allotment to the States, counties, and farms, estimating the average market price received by producers in advance of the marketing year, enforcing the acquisition of certificates by processors and exporters, and abating the cost of the certificates to processors and exporters upon proof of exportation to secondary market outlets.

b. The administrative problems involved in the determination and apportionment of primary allotments are essentially no different from those attending the determination and apportionment of the national rice acreage allotment under present adjustment programs.

c. The acquisition of certificates by processors being limited to milled rice would eliminate rough rice used for seed from price protection in the primary market. Therefore, seed rice would have to be excluded from domestic requirements in the determination of the primary allotments unless an effective device could be developed requiring purchasers of seed rice to acquire certificates. Also, there is a problem in extending the acquisition of certificates to brewers and other users of low-quality rice, the market outlets of which depend to a considerable extent on price relationships with other grains.

d. The real administrative problem, however, would be to prevent purchases for the secondary export market from finding their way into domestic consumption and exports to Cuba. Since industry administration on a voluntary basis would almost surely be unsuccessful and industry enforcement might raise constitutional questions, effective operation of the program would depend on stringent Government enforcement of market segregation at the stage of processing and exporting.

B. Variants of the Plan

1. Alternative Provisions

The errors of estimate inherent in the determination of the value of the certificates in advance of the marketing year and the administrative problems involved in correcting the impacts

of these errors of estimate could be eliminated by fixing the value of the (producer) certificates at the end of the marketing year when the differential between average market prices and 90 percent of parity can be accurately determined. Advance payments could be made on the certificates issued to producers, equal to a major fraction of the estimated certificate value, at the beginning of the season to facilitate producer financing.

Such arrangement, however, would not be practical with respect to the certificates required to be purchased by processors and exporters, and the consequences of errors of estimate in fixing the value of certificates would be merely limited in their impact to consumers in the primary market. If the differential is fixed too large, higher than 90 percent of parity would be exacted from these consumers, while they would obtain their requirements at less than 90 percent of parity if the differential was estimated too small. While over a period of years the effects of such errors could also be equalized in the manner suggested for readjusting the number and value of producer certificates, price levels substantially above parity resulting from too high estimates of the differential would likely be resented by primary consumers.

2. The Processing Tax Plan

The enforced acquisition of fixed-value certificates upon first sales by processors and exporters and reimbursement for the cost of such certificates upon proof of exportation into the secondary market would be similar in effect to a processing tax on domestic rice and an export tax on U. S. exports to Cuba. A direct processing tax levied upon all first purchases of rice has been suggested because of the relative simplicity of this approach as embodied in the Sugar Act of 1948. As in the Sugar Act, which provides for a processing tax on both the imported and the domestic product and for payments to producers, the Processing Tax Plan would provide for a tax fixed by law high enough to cover the estimated costs of payments to producers and of administering the program. The plan, as proposed, would require the first buyer to obtain a certificate for each hundred-weight purchased, evidencing payment of a tax fixed so as to equal the estimated differential. Upon proof of export to the secondary market, the tax would be refunded on the units so exported. Although the funds so collected would not be used for making payments to producers, they would approximately equal the funds required to be appropriated for making payments to producers on the basis of their allotted share in the primary market. Processors would pass on the tax on domestic sales and their outlay for certificates would be equal to the costs of the tax to consumers.

The producer would receive from the purchaser a stub showing, by hundredweight, the amount of rice sold, and each stub would be worth the processing tax multiplied by the percentage of the total crop allotted to the primary market. In this manner, producers would receive, in effect, a blended price, irrespective of the ratio of their current crop to the production history of their farms.

Inclusion of Cuba in the primary market might pose legal difficulties if the processing tax were considered an export tax. The processing tax, as such, however, would be an excise tax upon a manufacturing process for revenue purposes and not levied as a regulation of the process itself. Therefore, it might be considered as a valid exercise of the taxing power of the Federal Government. The proceeds of the tax would go into the general fund of the Treasury and would be available for any purpose for which the Congress may lawfully appropriate money. The payments made to rice producers would be paid out of funds appropriated by the Congress for that purpose. The fact that the annual appropriations for payments to producers would, over a period of years, approximately equal the funds collected in those years probably would not invalidate the legality of the procedure.

Since the fixed-value certificate plan, as proposed, also provides for two separate streams of funds which would balance each other over the long run, the processing tax plan differs from the fixed-value certificate plan only in (1) the method of financing--which difference is superficial--and (2) the current production basis for allotment of differential payments. Actual farm marketings as the basis for payments to producers would tend to unfreeze established production patterns. In the long run, however, there would likely be increasing pressures for production control, as low-cost producers may be expected to expand output rapidly and new producers without previous rice production history are attracted to growing rice. However, there are no reasons why under the operation of a processing tax plan the individual producer's share in the primary market could not be established on the basis of past farm production history instead of on the basis of current marketings, as proposed. The economics and mechanics of the processing tax plan would then be practically identical with the fixed-value certificate plan.

3. Differential Subsidy Plan

a. A variant of the fixed-value certificate plan has been suggested, in which the funds required to make the differential payments to producers are paid out of the general funds of the Federal Treasury instead of being derived from consumers in the primary market. Under this plan, payments would be made to the individual rice producer on the same percentage of his current crop as the ratio of primary

market requirements to the total U. S. crop of rice. Upon presentation of proof of sale in any outlet, each grower would be paid a fixed differential on a fixed percentage of his sales in defined market channels. The differential may be estimated in advance of the marketing year or established at the end of the marketing year, in which case advance grants of a portion of the payment could be provided.

b. The differential subsidy proposal, though involving the use of fixed-value certificates, appears to be more a version of a compensatory payment plan than of a plan of two-price marketing, which it resembles only in that differential payments are made to producers, derived from an imaginary claim in a primary market. It is reviewed here because of its having been submitted as an alternative two-price system.

c. The plan would require the general taxpayer to pay 90-percent-of-parity prices to rice producers for a volume of production greater than that which could be marketed at 90 percent of parity. Operation of this plan would, therefore, require substantially larger appropriations of public funds than needed for the program operated under present legislation. Under present programs, the taxpayers are protected against having to support rice prices to producers for unlimited volume of production by conditioning producer eligibility for price support upon compliance with production adjustment measures.

Under the differential subsidy plan, the subsidy payments would also be limited to a production for which, under present legislation, loans are made available to producers. However, the payments per hundredweight would be limited only by the extent of a decline of market prices below 90 percent of parity, and market prices, under the operation of this plan, would be sharply lower than under the operation of present programs as well as under the operation of free market prices. With taxpayers called upon to make up the difference between world prices and 90 percent of parity for a major portion of the U. S. rice crop in order to maintain a high-level, profitable export market for rice producers, the plan must be considered as an outright subsidy both to exports and to domestic consumption.

d. Although limitation of the compensatory payments to an allotted portion of the rice crop would tend to restrain tendencies toward persistent overproduction, there would be no inducement to orderly and efficient marketing, particularly if the differential is to be determined at the end of the marketing year, as has been proposed.

e. With each individual rice producer required under such a program to keep receipts and file claims in connection with all of his sales, the administrative difficulties and costs of operation would pose considerable obstacles in the way of acceptance of such a plan.

II. Plans Based on Producer-Controlled Marketing Devices

A. The Market-value Certificate Plan

1. Principal Provisions

Returns at 90 percent of parity would be obtained by producers in the primary market through a mechanism of marketing involving (1) the allotment to producers and acquisition by processors (and exporters to Cuba) of marketing certificates covering the requirements of the primary market and (2) the availability of 90-percent-of-parity crop loan to producers for the portion of the crop covered by certificates.

a. Allotment of Certificates to Producers

Producers would obtain certificates for their proportionate share in the primary market in the same manner as provided under the "fixed-value" certificate plan. The Secretary would proclaim a national rice marketing allotment on the basis of estimated primary market requirements, apportion such allotment to the States, counties, and individual farms, and issue marketing certificates to each rice-producing farm, covering the farm's share in the national marketing allotment. The certificates would have no fixed value and, therefore, no advance estimates of seasonal average market prices would be required. The certificates would be sold by producers to processors or exporters buying rice for the primary market, but would not be attached to specific lots of rice after the rice left the farm. The certificates would be issued to each farmer in his name, but would be negotiable upon endorsement.

b. Acquisition of Certificates by Processors for sale in the United States or Cuba

Processors and exporters of rice for the primary market would be required to purchase marketing certificates covering the quantities of rice purchased for domestic sales and exports to Cuba, respectively. In areas where a relatively large portion of the production is sold to the primary market, processors would be unable to acquire sufficient certificates from growers to cover the quantities of rice purchased for domestic use and exports to Cuba.

On the other hand, in areas where a relatively large portion of the production is sold to the secondary export market, producers would find themselves with a surplus of certificates.

Therefore, there would have to be a market in which certificates could be sold by producers unable to sell their certificates to first buyers and purchased by processors and exporters for rice acquired from producers without certificates. There would be trading in certificates among processors and merchants in widely separated areas as well as in the same or adjacent areas; and there would be a market in which processors and exporters would buy additional amounts of certificates needed to cover sales for the primary market or dispose of excess certificates should rice acquired for the primary market be exported in the secondary market.

c. Loans to Producers

Non-recourse loans and purchase agreements would be made available to producers at 90 percent of parity for rice covered by certificates. Under loans, the certificates would be pledged together with the rice as collateral; under purchase agreements, the certificates would be delivered with the rice in fulfillment of the agreements. Stocks of rice acquired by CCC in default of loans or fulfillment of purchase agreements would be available to processors at 105 percent of the current loan rate, plus carrying charges, as provided under present legislation for sales of storable commodities owned by CCC.

d. Value of Certificates

With price support at 90 percent of parity available to producers for the portion of the rice crop covered by marketing certificates, the value of the certificates would tend to equal the current difference between the support price and the market price. As market prices decline, the value of the certificates would increase, and as market prices rise the value of the certificates would decrease.

e. Attainment of Price Objective in the Primary Market

Producers unable to sell their certificates to processors for the primary market at a price which, when added to the market price results in returns at the support price, would be expected to place the rice covered by certificates under price support and surrender the certificates to the Commodity Credit Corporation. As an increased quantity of certificates became frozen under CCC control, the market value of the certificates would rise; it could, however, not rise significantly above the current difference between market prices and the support price because of loan redemptions by producers above 90 percent of parity and the availability of certificated rice from CCC at 105 percent of the current support price plus carrying charges.

2. Economic Comments

a. The mechanism of marketing upon which the plan is based would make it possible for producers to exact 90 percent of parity directly from buyers in the primary market. With producers placed in position to dispose of the allotted portion of their crop at 90 percent of parity regardless of current market price changes, attainment of the price objective in the primary market would not be subject to the errors of advance estimates of market prices inherent in fixed-value certificate plans. Since changes in market prices would tend to be offset by corresponding changes in the opposite direction in the value of the certificates, realization of the price objective would depend entirely on producers themselves, that is, on their availing themselves of price support in preference to disposing of certificates of less than the current differential between the support level and the market price.

b. The market value of the certificates would, however, be affected by errors in estimating domestic consumption and exports to Cuba. If the estimates are too low, there would be a shortage of certificates and their value would rise above the differential between the market price and the support price, thus tending to increase returns to producers above 90 percent of parity. If the estimates were too high, the certificate values would be lower than the differential. This, however, would not necessarily decrease returns to producers in the primary market below the support price, since the excess of the allotted supply relative to actual primary requirements could be placed by producers under price support.

To avoid artificial scarcity of rice in the primary market, an allowance for error could be added to the estimate of primary requirements until some CCC reserve stocks have been built up through default of loans. Any tendency of stocks to accumulate under Government ownership could be effectively dealt with by adjusting the primary market allotment so as to hold Government stocks to the desired reserve level.

c. Market prices would be free and, being unsupported by loans, would be expected to reflect export prices in the secondary market. The problems arising from price competition in world trade and of preventing unrestrained expansion of United States rice production and the advantages accruing to producers from the protected primary market from being sacrificed in the secondary market are no different under this plan than under plans involving fixed-value certificates.

d. In view of the large percentage of the U. S. rice production which is moving into the primary market, for which 90-percent-of-parity loans would be available to producers, there would be no need under this plan, as under the fixed-value certificate plans, for a floor under market prices. Unlike under the operation of a two-price system for wheat, which might require a low-level price support so as to avoid excessive competition of wheat with corn and other feed grains for which price supports are in effect, there are practically no domestic crops competing with rice on a price basis in the domestic market. Acreage allotments might limit the availability of U. S. exportable supplies to some historical or "reasonable" share of the United States in world rice trade so as to prevent export dumping and minimize the risks of countervailing duties by importing countries and retaliatory measures by other exporting countries. However, there are no reasons for believing that the United States could produce rice at a cost so low as to demoralize world rice markets without subsidization of exports.

3. Administrative Comments

a. Since there would be no payment, nor tax, levied upon processors, no payments made to producers, and no advance estimates of market price required, the plan as outlined appears to offer many distinct advantages over other multiple-price plans because of its relative simplicity of operation. However, enforced acquisition of certificates by exporters of rice to Cuba might be construed as a tax on export, the unconstitutionality of which, as in the case of the fixed-value certificate plans, might preclude the inclusion of Cuba in the primary market.

The plan would be self-financing, with the expenditure of public funds limited to the cost of administration. The role of Government would be confined to estimating primary requirements, issuing and allotting certificates to producers and controlling their acquisition by processors for the primary market, and carrying out a loan program for crop supplies covered by certificates. Unlike the loan programs operated under present legislation under which supplies produced in excess of market outlets at support prices are unloaded upon the Government, the loans provided under the market-value certificate plan would be designed to be self-liquidating every marketing year. Market prices would be free from direct Government interference, and processors could choose the qualities of rice desired and the location of purchases.

b. The need for processors to acquire certificates for sales in the primary market would not increase the price risk of ownership of stocks of rice held by processors and merchants.

Rather, it would reduce such risk as fluctuations in the value of the certificates and would tend to maintain the value of rice in the primary market at or near the loan level.

c. Under the operation of this plan, as under the operation of most other two-price systems for rice, producers in areas where most of the rice is produced for the secondary market would receive the same proportionate allotments relative to their normal production as producers in areas where rice is grown largely for the primary market. This feature of most two-price marketing systems has given rise to producer objections in the areas where the major portion of the rice crop is sold in the domestic market or exported to Cuba. However, under the operation of the price support program for rice now in effect, producers in all areas enjoy the same price protection regardless of market outlets.

Under flexible price supports, production in excess of domestic and export requirements is not only dealt with by acreage reductions through allotment programs, but also by lowering of the level of price support, and the lower support prices, as well as the acreage reductions, are applicable to all producers, regardless of whether the disparity between supplies and requirements resulted from expansion of production in the areas where rice is produced for secondary or primary markets.

d. In theory, the plan would be more effective than fixed-value certificate plans in attaining the price objective in the primary market, since producers, with loans at 90 percent of parity available on their primary market allotment, would not need to dispose of their certificates at less than the current market differential. However, as the experience with loan programs for rice and other price-supported commodities illustrates, many producers may be expected to sell their certificates at less than the current differential, just as they have been marketing part of their crops at prices lower than the available loan rate.

e. Control problems would essentially be limited under this plan to preventing supplies of rice purchased for the secondary market from finding their way into domestic consumption and exports to Cuba. To the extent that the administrative measures employed to insure the acquisition of certificates by processors and exporters for the primary market fail to be ineffective, surpluses would accumulate under Government ownership as they do under the operation of present price support programs.

B. Marketing Card Plan

1. Principal Provisions

a. Growers would be issued marketing cards, showing the amount of their primary market "quota", determined in the same manner as the apportionment of certificates under the marketing certificate plans.

b. Rice produced within the marketing quota would be eligible for price support at 90 percent of parity through CCC loans and purchase agreements as available to cooperators under present acreage allotment programs. There would be no limit on the total quantity of rice which could be produced, but prices would not be supported for any quantity produced in excess of the quota established for the primary market. The excess over the quota would be disposed of at prices competitive with prices in other rice exporting countries.

c. The quantities of rice produced in excess of the domestic quota would be subject to a penalty equal to 50 percent of the loan rate unless exported to the secondary market. The marketing card issued to each producer would provide for a record of all sales and sales prices of quota rice and of over-quota rice by the producer, and each sale would be acknowledged by the purchaser's signature on the card. The marketing card would be issued in multiple copies, and the producer would give a copy to each purchaser of over-quota rice. The purchaser would submit his copy to a regional CCC office which would handle the mill's account for penalty rice. The quantity of each purchase would be debited to the mill's account, and as proof of export were submitted, the account would be credited in the amount of the export. The penalty would be paid by the first purchaser who, in turn, would deduct the penalty from the price paid to the producer for excess-quota rice.

The originals of the marketing card would be submitted by the producer to the ASC county offices as soon as producers have disposed of their current year's production or at the end of the marketing year, if not all of the crop has been disposed of before that time.

d. The maximum quantity of any producer's rice eligible for price support at any time would be the amount shown on the marketing card as the primary market quota, less any quantity of primary market quota rice recorded on the card as sold. The county committee would make notation on the marketing card of any quantity of rice placed under loan or delivered to CCC under purchase agreement, and the quantity of quota rice remaining for sale would be reduced by a corresponding amount.

e. In the case of producers who are members of cooperatives which pool all members' rice so that its identity is lost before being sold or milled by the cooperative, the cooperative would sign the producers' marketing cards as purchaser of their rice and would be responsible for the penalty on over-quota rice sold into the secondary export market. Where a cooperative

sells a member's rice for his individual account, the cooperative would be considered as an agent of the producer and the purchaser from the cooperative would be considered the first buyer and would sign the marketing card.

2. Economic Comments

a. The plan, if administratively feasible, would, in effect, exempt producers who grow the major portion of their crop for export (to the secondary market) from the marketing quota provisions of present legislation to the extent that proof of such exports can be established. Thus, the plan extends the principle of comparative economic advantage to individual producers and areas of production within the United States by limiting the applicability of enforced production controls under marketing quotas to producers who produce primarily for domestic consumption (and exports to Cuba) where consumption is relatively unresponsive to lower prices.

This policy is in marked contrast with the policy of equal sharing of the primary market assured all producers under other two-price systems and the uniform applicability of marketing quotas to all producers under present price support and adjustment programs, regardless of the types of rice which are in surplus or the areas of origin.

b. The plan would be effective in insuring returns at 90 percent of parity for the primary allotment to the extent that producers avail themselves of loans in preference to disposing of primary supplies at less than 90 percent of parity. In this respect the effects of the plan appear to be very similar to the market-value certificate plan.

c. The plan would stimulate direct producer efforts to expand export markets for production in excess of their primary quota, and those producers and areas of production who were unable to compete in these markets would be forced to limit their operations to the primary market outlets and derive no benefits from increased exports effected in other areas. California producers would probably succeed under this plan in significantly expanding their exports to Japan and other far-eastern rice-deficit countries, while inability to expand exports into secondary markets might tend to hold acreage and production of rice in other areas at about to the acreage allotted under marketing quotas.

d. The controversial question as to the desirability of a policy of limiting, at least in effect, producer participation in a two-price system of marketing to those who actually export their "marketing excess" into secondary channels is, however,

not the main obstacle in the way of acceptability of the marketing card plan. The real problem lies in the complex administrative procedures required for the operation of this plan, which would give rise to serious questions as to its practicability. Also, inclusion of Cuba in the primary market would, as in the case of other two-price plans, lead to legal problems requiring careful study. If the penalty imposed on excess-quota sales were considered as a tax or duty upon the fact of exportation, it would appear to be invalid. While it might be possible to establish that the penalty was not a tax or duty, or that it was attached to the rice prior to its entering export channels, the legal issue of constitutionality would still have to be contended with.

3. Administrative Comments

The administrative problems and difficulties involved in this plan are obvious from the provisions proposed for its operation, which would require complete Government supervision and control of all sales by producers and purchases by producers and merchants as well. The procedures necessary to insure effective operation would be incompatible with a policy of minimizing Government controls in the operation of farm programs.

Also, there would be a problem of handling rice retained for use on the farm as used or feed. If the quantity of rice so used were included in the primary market quota, such quantity would have to be entered on the marketing cards as a charge against the quota, and it would be difficult to provide for adequate checks to insure exclusion of such rice from the quota. The problem is further complicated by the fact that a considerable amount of seed rice is handled commercially.

INTERNATIONAL IMPLICATIONS OF TWO-PRICE PLANS FOR RICE

One of the major obstacles to the acceptability of a two-price system for rice is the danger of alienating the good will of other rice-producing countries.

To assess this danger it is necessary to consider what the effect of the establishment of a two-price system of rice is likely to be. The world rice trade of the prewar period was about 9 million metric tons, and by 1953 this had fallen to 4.6 million tons. In the Far East area, which is of the greatest concern to the United States in international trade relationships, some 88 percent of the total cereal import needs were supplied by rice before the war. By 1953 the relative position of rice had fallen to 31 percent of total cereal imports. The problem, therefore, is not to merely increase per capita consumption of rice, desirable as this may be in certain areas, but rather to regain a portion of the prewar rice market lost in the postwar years to other cereals because of scarcity and price relationships.

Other rice-exporting countries have in the past not been so much concerned with the volume of rice which was being marketed by the United States as they have been in the effect on rice prices of the surpluses of other cereals which were building up in the world. This build-up, which has already developed to excessive proportions, is the primary reason for the lower level of world rice prices compared with 1952-53. Relative to total world rice trade, the increase in U. S. rice exports has been relatively unimportant.

Asian areas imported a total of 3 million tons of rice in 1953, of which about 450 thousand tons were supplied by the United States. The U. S. exports, therefore, represented about 15 percent of the 1953 imports of the Far East. In 1954 total imports in Asia are estimated to have been 3.7 million tons of which the United States supplied about 9 percent.

A decline in the export price of U. S. rice would affect primarily the export outlets of high-grade rice produced in major exporting areas, because it is principally these grades that are in direct competition with U. S. exports. The Asian rice problem is mainly one of marketing a large percentage of export supplies in the form of low-quality grades. Prices of these grades might have to be lowered further if the prices of higher-quality rice in international trade should decline. Aside from price, the problems of disposal would perhaps not be any greater, however, than at present.

If, under further impacts of export competition from other grains, the volume of rice moving into international trade should continue to shrink, world rice prices would be expected to decline well below the levels corresponding to present U. S. support prices and our exports would be drastically curtailed.

If the U. S. rice producers are to maintain large exports in the years ahead, they probably will have to accept lower prices--whether on the whole crop or only on the exportable surplus. Foreign countries could hardly object to a lowering of support levels for the whole crop, even though this would mean increased competition.

If, however, the United States maintained prices for U. S. rice sold domestically higher than the prices at which U. S. rice was sold abroad, other rice exporting countries would be more apt to claim that the United States engaged in export dumping than if the United States sold its entire crop at a lower support price or at free market prices in all channels of trade.

It could be argued that competition would be increased only slightly more under a two-price system than under a general lowering of supports because U. S. producers would not produce rice for export unless the returns from such exports covered their marginal costs.

Regardless of the economic facts, political groups hostile to the United States could claim that a price differential between the domestic and the export price of the United States was designed to capture foreign markets by Government action, and sentiment against the United States may be built up in an area which is highly sensitive from the viewpoint of United States foreign policy. This could be expected to be the case regardless of the fact that some of the other rice-exporting countries operate marketing systems that involve discriminatory pricing.

If the effect of the establishment of a two-price system for rice in the United States were to bring forth actions against the United States by other rice-producing countries, such actions would take the form of (1) price competition, either directly or through exchange manipulations and (2) retaliatory acts which would discriminate against the movement of other American products, both agricultural and manufactured. Probably the price cutting policy would be the first employed, followed by retaliatory measures as a secondary development.

Reactions of importing countries would probably depend on whether or not they have an import monopoly. In the latter case they would probably welcome any lower price; in the former, they might impose countervailing duties or use some other device to protect their producers.

Since the rice trade currently suffers from the competition of other lower-priced cereals, it is likely that the movement of excess rice from the United States at lower prices under a two-price system would tend to increase the total volume of rice moving in world trade. However, the impact of this gain in volume would be offset to some degree by the impact of the lower price. This impact would fall upon the foreign governments if they decided to maintain producer prices. It would fall on foreign producers if the governments decided to cut producer prices in order to maintain their exports.

DIFFERENT PROGRAMS COMPARED AND CONCLUSIONS

Effects on markets prices, acreage, and gross returns of programs which support prices at 90 percent of parity, 75 percent of parity, 65 percent of parity, and under two-price systems of marketing are compared in table 1.

The effects of two-price systems shown in the table were derived from analysis of the differential fixed-value certificate plans. For the purpose of these comparisons, it is assumed that the programs are unhampered by large surpluses carried over from previous crops, either in this country or in other surplus-producing countries and that stocks have been adjusted to normal proportions. The analysis, though reflecting present market conditions, is not intended as applicable to the 1955 crop.

In this analysis the elasticity of demand in the primary market and the indicated export quantities associated with the different price levels represent rough estimates based both upon statistical analysis and upon the judgment of USDA marketing specialists who are most familiar with the demand for rice at home and abroad.

The parity price as reported for December 1954 was used to determine the loan rates and related prices. Domestic price represents the average price received by growers, adjusted for returns from quantities delivered to CCC under the support programs. Under the 90-percent-of-parity support level, market prices were estimated to be 22 cents below the support price, reflecting sales in the free market below the support levels. Prices to growers under the operation of the 75-percent-of-parity support plan were estimated at 16 cents under the support level, because it was assumed that domestic prices would not need to decline more than that amount before reaching world levels. Under the 65-percent-of-parity loan, prices are assumed to average only 2 cents under the support.

Table 1.- Effects of alternative rice programs on gross returns

Item	Unit	Prices supported at-			Two-price system
		90 percent	75 percent	65 percent	
Parity	:Dol. per cwt.:	5.41	5.41	5.41	---
Loan rate	:Dol. per cwt.:	4.87	4.06	3.52	---
Price:					
Domestic	:Dol. per cwt.:	4.65	3.90	3.50	4.65
Export:					
To Cuba	:Dol. per cwt.:	4.65	3.90	3.50	4.65
Other	:Dol. per cwt.:	4.65	3.90	3.50	3.45
Sales:					
Domestic	: Mil. cwt.:	26.0	27.3	28.0	26.0
Export:					
To Cuba	: Mil. cwt.:	7.0	7.0	7.0	7.0
Other	: Mil. cwt.:	8.0	15.0	21.0	23.0
Total sales	: Mil. cwt.:	<u>41.0</u>	<u>49.3</u>	<u>56.0</u>	<u>56.0</u>
Gross return from sales					
Domestic	: Mil. dol.:	120.9	106.5	98.0	120.9
Export:					
To Cuba	: Mil. dol.:	32.6	27.3	24.5	32.6
Other	: Mil. dol.:	37.2	58.5	73.5	79.4
Total returns	: Mil. dol.:	<u>190.7</u>	<u>192.3</u>	<u>196.0</u>	<u>232.9</u>
Acres					
Needed	: 1,000 acres:	1,727	2,077	2,359	2,359
Diverted	: 1,000 acres:	632	282	0	0
Gross return					
Per hundredweight	: Dollars:	4.65	3.90	3.50	4.16
Per acre	: Dollars:	110.42	92.59	83.09	98.73

Yield assumed = (1950-54) of 2,374 pounds per seeded acre.

Under the 90-percent support, exports are estimated at only 15 million hundredweight, 7 million of which is to Cuba, and 8 million to markets which are willing to pay a premium for quality rice from the United States. The lower export price under the 75-percent plan is associated with an increase in non-Cuban exports from 8 million hundredweight to 15 million. A further decline in price under the 65-percent plan from \$3.90 to \$3.50 is associated with an increase in non-Cuban exports from 15 million to 21 million hundredweight. A still further but small decline in price under the two-price plan from \$3.50 to \$3.45 is associated with an increase in non-Cuban exports from 21 million to 23 million hundredweight. Exports are significantly increased only with a considerable decline in prices from high domestic price levels, whereas exports up to a certain limit are increased at a more rapid rate when prices decline from an already low level. Imports by Cuba remain fairly constant and do not change with lower prices paid for imported rice, and exports to Cuba under all plans are the same. Continental-territorial disappearance is increased from 26 million hundredweight to 27.3 million, when domestic prices are reduced from \$4.65 to \$3.90, and increased still further to 28 million hundredweight when prices are reduced to \$3.50. Under the two-price system the continental-territories disappearance is the same as under the 90-percent support plan.

The table assumes prices at assigned levels of supply. Production under the two-price plan is placed at 56 million hundredweight, which is below the 59 million hundredweight reached in 1954, but it is 27 percent above the 1955 acreage allotment times average yields, or 44.14 million hundredweight. It is also 29 percent above the 1948-52 average of 42.4 million hundredweight and 2-1/2 times as much as the 22.43 million hundredweight, the 1935-39 average.

It is assumed that this size of production would be the approximate stabilization level under assumed conditions. This represents 2,359 thousand acres. The 65-percent-of-parity plan would involve the same acreage, also with no acreage allotment. The other two plans would require less acres, but acreage allotments would be necessary to hold production so as to assure the associated price level. Under the 75-percent plan, 232 thousand acres would be released, and under the 90-percent plan, there would be 632 thousand acres released.

The gross returns to growers for total sales are shown under the two-price plan at 232.9 million dollars, compared with 196.0 million dollars for the 65-percent support plan, 192.3 million dollars for the 75-percent plan, and 190.7 million for the 90-percent support plan.

On the basis of gross returns per hundredweight, the 90-percent support plan leads the two-price plan at \$4.65 compared with \$4.16, whereas the 75-percent support plan is \$3.90 per hundredweight, and the 65-percent plan is \$3.50.

On the gross return per-acre basis, the 90-percent support being on the entire crop, even though the crop was drastically reduced, it would result in a return of \$110.42 compared with \$98.73 for the two-price plan, \$92.59 for the 75-percent plan, and \$83.09 for the 65-percent support plan.

Diverted acres under the 90-percent and the 75-percent plans in many cases would be used so as to bring in some additional returns. Rice growers in the Southern States probably would use a considerable part of their diverted acreage to lengthen the period between rice crops. For example, instead of being out of rice for one year, some land would be kept out for 2 or more years. This would be used largely for unimproved pasture and grazed by cattle. Many farmers would improve their pastures and increase cattle numbers. In the event there were no cross-compliance requirements, soybeans would be planted on some of the diverted acres in Arkansas and Mississippi and possibly some other States. More oats, lespedeza for hay and seed probably would be grown in rotation. However, the longer rotations would tend to increase yields per acre.

In California, barley would be grown on much of the diverted land, provided there were no requirements of cross-compliance. With or without cross-compliance, the practice of fallowing would be more extensively used to improve texture and condition of the soil and to control weeds. Again, if there were cross-compliance, some diverted acres would go into perennial pasture, in a long rotation.

Pasture and livestock as an alternative would be open to very few tenant-operators, those few who have a livestock enterprise. In most cases the land owner would enter into a pasture-livestock partnership with a rancher already in the livestock business, rather than with the rice grower who has no livestock facilities. In other words, many tenant-operators would have no practical alternatives, in case of cross-compliance.

Theoretically, two-price marketing would make it possible for producers to maintain exports at a relatively high level and thus avoid future drastic acreage reductions which otherwise may be necessary in the years to come and producer compliance with which would be enforced when marketing quotas were in effect. It would likely result in larger gross returns to producers than obtainable either under present legislation or under free market prices, without requiring Government subsidization. It would restore to producers greater freedom of initiative in planning their operations in accordance with changing market conditions, without sacrificing the basic income protection accorded under present legislation; and it would eliminate the need for large-scale Government storage and disposal operations associated with the operation of present programs.

There are, however, distinct disadvantages inherent in all two-price marketing systems for rice, which none of the various proposed mechanisms of operation could be expected to overcome or render less objectionable. These disadvantages largely consist of the following:

(1) The complex administrative procedures which would be required to insure the effective and efficient operation of such programs, and the problems involved in enforcing industry-wide compliance with measures which in themselves would create strong economic incentives to non-compliance.

(2) Since U. S. market prices under the operation of a two-price plan would be lower than they would be without any system of price support at all, the ability of U. S. rice producers to compete for a larger share of world rice exports, made possible by the assurance of fixed high-level returns in a market for from one-half to two-thirds of their production, would probably be regarded in export trade as a Government dumping program and invite retaliatory measures by other countries. The risk of aggressive use of dumping methods by exporters under two-price marketing arrangements could be minimized by acreage allotments set at a level so as not to increase United States export availability above a historical or otherwise determined reasonable share of world rice trade. This would, however, not only introduce further administrative problems, but might require large-scale CCC storage operations, surplus disposal, and adjustment programs exactly as under the operation of present programs. Moreover, it would defeat the major purpose of the two-price plan--that of using lower export prices to expand the export market for rice.

In view of these difficulties, many representatives of the rice industry have considered other courses of action by which high-level exports could be maintained and, at the same time, drastic acreage curtailment

could be avoided. This might be accomplished by a system of price supports offering producers a realistic choice of flexible production and price policies which present legislation fails to provide. Present legislation requires the Secretary, except under emergency conditions, to proclaim marketing quotas when the total supply of rice exceeds the normal supply by more than 10 percent. Since the total supply of rice available for 1955-56 is estimated at 17 percent above the normal supply, marketing quotas had to be proclaimed for the 1955 crop of rice, and with marketing quotas having been approved by more than two-thirds of the eligible growers voting in a referendum, they will be in effect.

Since the law requires that the acreage allotment be determined so as to result in a total supply for which 90-percent-of-parity price support can be made available to producers, and since under marketing quotas compliance with such allotment is enforced by penalty, producers have no alternative other than to reduce their production to market outlets at 90 percent of parity and, besides, absorb the excess of carryover stocks. Although producers could have voted down marketing quotas, the alternative to such disapproval would have been reduction of the support level to 50 percent of parity, and such level of price support would be available only to producers complying with allotments established for price support at 90 percent of parity.

Obviously, producers have little choice under these legislative provisions other than approving of 90-percent-of-parity price supports, sharply reducing production and income, sacrificing export markets, and approving enforcement of such a program--or else forfeit all right for price support and subject themselves to free market prices. In this situation, two-price systems of marketing, indeed, offer a most promising alternative. However, if legislation were changed to give producers a choice of production and price policies as between high-level unit returns at the expense of volume of production and high-level production at the expense of unit returns, two-price systems with their administrative complexities and unfavorable international repercussions might lose much of their appeal to producers and the trade in favor of a policy of price flexibility. Such freedom of production and price policies could be offered producers by changing the marketing quota and price support provisions of legislation so as to make available to producers, when voting on marketing quotas, choice of 90-percent support with drastic acreage limitations, 75-percent support with a larger acreage allotment; or a system of price support at a lower level, say 65 percent of parity, without any acreage or marketing controls. This latter choice could be offered producers as the alternative to approving marketing quotas instead of the 50-percent-of-parity price support, limited to cooperators, now provided for when marketing quotas are voted down in the referendum. Thus, producers could, in effect, choose a program of price support which would permit high-level production, maintain export markets, and result in a somewhat larger gross income than obtainable under present programs without giving rise to the problems and difficulties which militate against the acceptability of a two-price system of price support.

APPENDIX A

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Table 2 .- Rice, rough: Acreage seeded, yield, and production,
Southern States, California, and United States, 1930-54

Crop year	Acreage seeded			Average yield per seeded acre			Production		
	Southern States 1/	California: :	United States :	Southern States 1/	California: :	United States :	Southern States 1/	California: :	United States :
	1,000 acres	1,000 acres	1,000 acres	Pounds	Pounds	Pounds	1,000 cwt.	1,000 cwt.	1,000 cwt.
1930	856	110	966	1,980	2,974	2,093	16,946	3,272	20,218
1931	840	125	965	1,948	2,970	2,080	16,364	3,712	20,076
1932	764	110	874	1,992	3,191	2,143	15,219	3,510	18,729
1933	690	108	798	2,005	2,880	2,123	13,833	3,110	16,943
1934	704	108	812	1,968	3,440	2,164	13,856	3,715	17,571
1935	717	100	817	2,012	3,330	2,173	14,423	3,330	17,753
1936	843	138	981	2,159	3,060	2,285	18,196	4,223	22,419
1937	967	149	1,116	2,062	2,751	2,154	19,941	4,099	24,040
1938	951	125	1,076	2,088	3,015	2,196	19,859	3,769	23,628
1939	925	120	1,045	2,192	3,375	2,328	20,278	4,050	24,328
1940	972	118	1,090	2,083	3,600	2,247	20,247	4,248	24,495
1941	1,110	153	1,263	1,740	2,475	1,829	19,308	3,787	23,095
1942	1,278	212	1,490	1,831	2,680	1,952	23,400	5,682	29,082
1943	1,280	237	1,517	1,774	2,765	1,929	22,712	6,552	29,264
1944	1,257	246	1,503	1,927	2,744	2,061	24,224	6,750	30,974
1945	2/1,270	244	1,514	1,926	2,566	2,029	2/24,456	6,262	30,718
1946	2/1,333	264	1,597	1,847	2,997	2,037	2/24,622	7,913	32,535
1947	2/1,462	259	1,721	1,862	3,102	2,048	2/27,218	8,035	35,253
1948	2/1,564	264	1,828	2,013	2,588	2,096	2/31,488	6,832	38,320
1949	2/1,573	312	1,885	1,943	3,275	2,164	2/30,566	10,218	40,784
1950	2/1,395	241	1,636	2,185	3,432	2,369	2/30,487	8,270	38,757
1951	2/1,682	319	2,001	2,091	3,347	2,292	2/35,177	11,676	45,853
1952	2/1,679	335	2,014	2,177	3,497	2,396	2/36,545	11,715	48,260
1953	2/1,754	429	2,183	2,309	2,857	2,417	2/40,504	12,257	52,761
1954 3/	2/1,991	485	2,476	2,423	2,242	2,387	2/48,234	10,872	59,106

1/ Southern States consist of Texas, Louisiana and Arkansas, and beginning in 1949, Mississippi.

2/ Includes acreage and production in minor States, in thousand acres and thousand cwt. (in parenthesis) as follows: 2 (50) in 1945, 2 (38) in 1946, 2 (36) in 1947, 2 (45) in 1948, 2 (47) in 1949, 4 (68) in 1950, 3 (56) in 1951, 8 (153) in 1952, 9 (154) in 1953, and 14 (253) in 1954.

3/ Preliminary.

Table 3 - Rice, in terms of rough: Supply and distribution,
United States, 1935-54 1/

Year beginning: August	Supply			Disappearance			Ending stocks		
	Begin- ning stocks	Farm produc- tion	Im- ports	Total	Food	Industry	Feed and seed	Total	Ex- ports
	Thous. cwt.	Thous. cwt.	Thous. cwt.	Thous. cwt.	Thous. cwt.	Thous. cwt.	Thous. cwt.	Thous. cwt.	Thous. cwt.
1935	785	17,753	947	20,630	14,897	1,711	1,357	17,965	1,369
1936	1,296	22,419	2,945	26,426	16,275	3,394	2,205	21,874	840
1937	3,712	24,040	1,225	29,257	15,831	3,790	1,725	21,346	4,764
1938	3,147	23,628	1,018	28,221	14,896	2,869	1,442	19,207	4,767
1939	4,247	24,328	647	29,765	15,770	2,762	1,514	20,046	4,484
1940	5,235	24,495	335	29,745	16,465	2,950	1,723	21,138	5,651
1941	2,956	23,095	125	26,690	15,088	2,550	1,933	19,571	6,552
1942	567	29,082	136	29,552	16,059	2,235	1,972	20,266	6,961
1943	2,325	29,264	77	30,213	16,664	2,702	1,950	21,316	7,069
1944	1,828	30,974	8/	31,762	14,936	3,144	1,923	20,003	10,201
1945	1,558	30,718	127	32,339	14,049	3,510	2,056	19,615	11,469
1946	1,255	32,535	9	33,050	15,527	2,494	2,143	20,164	12,290
1947	596	35,253	27	35,841	15,349	4,392	2,297	22,038	13,055
1948	748	38,320	53	38,974	15,331	4,322	2,438	22,091	14,378
1949	2,505	40,784	62	43,115	16,682	4,627	2,113	23,422	16,224
1950	3,469	38,757	787	43,414	18,252	4,901	2,575	25,728	13,167
1951	4,519	45,853	510	50,177	16,756	4,707	2,615	24,078	24,059
1952	2,040	48,260	350	51,912	17,750	4,699	2,794	25,243	25,154
1953	1,515	52,761	414	55,894	17,950	4,606	3,072	25,628	22,709
1954 9/	7,557	59,106	350	67,013	(18,300)	(6,000)	(2,713)	(27,013)	(26,000)
								(53,613)	(14,000)

1/ Milled rice converted to rough basis at actual annual extraction rate. 2/ Stocks data are incomplete prior to August 1, 1937. 3/ Includes production in minor States of Missouri, South Carolina, Arizona, and Florida, beginning 1945. 4/ Consists mostly of broken rice. 5/ Adjusted to equal total distribution. 6/ Includes shipments to territories and military food use. 7/ Primarily for beer production. 8/ Less than 500 cwt. 9/ Preliminary.

Table 4.- Rice, in terms of milled: Trade by principal importing and exporting areas, average 1936-40, annual 1952-54

Area	Imports					
	Average 1936-40	1952	1953		1954 1/	
			Quan- tity	Percent- age of total	Quan- tity	Percent- age of total
	Million pounds	Million pounds	Million pounds	Percent	Million pounds	Percent
Western Hemisphere:						
Cuba	445	466	558	6	350	
Other countries	447	308	314	3		
Total Western Hemisphere	892	774	872	9		
Europe	3,223	617	743	8		
Asia:						
Japan	4,122	2,197	2,330	24		
Malaya	1,746	1,162	1,205	13		
Ceylon	1,219	894	904	10		
Indonesia	499	1,674	789	8		
Hong Kong	1,075	522	688	7		
Korea	2/	430	550	6		
India	3,727	1,617	426	4	1,400	
Other Asia	1,803	694	557	6		
Total Asia	14,191	9,190	7,449	78		
Africa	919	448	439	4		
Oceania	101	57	57	1		
Total world imports	19,326	11,086	9,565	100		
	Exports					
Asia:						
Rice Bowl:						
Burma	6,536	2,924	2,180	23	3,300	30
Thailand	2,920	3,148	2,946	30	2,800	26
Indochina	3,232	496	426	4	600	6
Total	12,688	6,568	5,552	57	6,700	62
Other countries	5,872	850	1,128	12	1,400	13
Total Asia	16,560	7,418	6,680	69	8,100	75
Western Hemisphere:						
United States	236	1,804	1,750	18	1,400	13
Brazil	84	379	6	---	40	---
Other countries	94	281	370	4	420	4
Total Western Hemisphere	414	2,464	2,126	22	1,860	17
Europe:						
Italy	336	608	536	5	480	4
Other countries	12	196	192	2	160	2
Total Europe	348	804	728	7	640	6
Africa:						
Egypt	276	36	2	---	40	---
Other countries	34	108	108	1	160	1
Total Africa	310	144	110	1	200	1
Australia	30	54	66	1	60	1
Total world exports	17,662	10,884	9,710	100	10,860	100

1/ Estimated. 2/ Korea was a net exporter of rice.

Table 5.- Rice, in terms of milled: United States exports to specified countries, averages 1940-50, annual 1951-53 1/

Country of destination	Year beginning August				
	Average		1951	1952	1953 <u>2/</u>
	1940-44	1945-49			
	1,000 cwt.	1,000 cwt.	1,000 cwt.	1,000 cwt.	1,000 cwt.
Western Hemisphere:					
Canada	347	403	443	601	633
British Honduras	5	13	22	3	17
British West Indies	38	97	54	81	6
Cuba	3,142	4,923	5,118	4,876	4,755
Netherlands Antilles	5	9	25	41	53
Venezuela	22	76	196	86	215
Bolivia	2	12	4	7	5
Colombia	3/	1	3/	3/	314
Other countries	57	87	34	8	29
Total	3,618	5,621	5,896	5,703	6,027
Europe:					
Belgium and Luxembourg	0	73	57	52	206
France	14	11	3/	3/	0
West Germany	0	14	1	3/	29
Greece	24	109	209	3/	11
Iceland	8	10	3	8	3/
Netherlands	43	3	0	0	12
Switzerland	46	32	21	38	57
Other countries	701	86	0	2	25
Total	836	338	291	100	340
Asia:					
Saudi Arabia	3	80	91	138	130
Ceylon	4	0	741	647	0
Indonesia	3/	646	1,799	1,100	0
Philippines	2	1,136	71	3/	3/
China	3/	796	0	0	0
Korea, Republic of	0	98	2,821	4/4,631	4/590
Hong Kong	3/	36	0	179	0
Japan	1	279	5,430	3,999	8,536
Ryukyu Islands	0	0	0	616	0
Other countries	9	24	9	5	25
Total	19	3,095	10,962	11,315	9,281
Total Oceania	10	5	13	19	17
Liberia	38	36	73	22	67
Other Africa	45	1	4	3/	6
Other countries	---	---	---	---	5/ 8
Total world	4,566	9,096	17,239	17,159	15,746

1/ Milled rice, including brown, broken, screenings and brewers' rice and rough rice converted to milled at 65 percent. 2/ Preliminary.

3/ Less than 500 cwt. 4/ Adjusted to include all programs of the Department of Defense and the Foreign Operations Administration. 5/ Starting with January 1954, includes shipments valued at less than \$500 each when the number of such shipments in a given month is few.

Table 5.- Rice, rough: Price support operations and price analysis items. 1940-54

Year	Production:	Owed by	Under price support	Deliveries:	Support:	Season
beginning	August	CCC on	Loans	Purchase	rate	average
August	August 1	August 1	agreements:	Total	per cwt.	price
						received
						by farmers 1/
	1,000	1,000	1,000	1,000	1,000	
	cwt.	cwt.	cwt.	cwt.	cwt.	Dollars
						Dollars
1940	24,495	---	---	---	---	1.80
1941	23,095	---	---	---	2.04	3.01
1942	29,082	---	---	---	2.33	3.61
1943	29,264	---	---	---	2/	3.96
1944	30,974	---	---	---	2/	3.93
1945	3/30,718	---	---	---	2.82	3.98
1946	3/32,535	---	---	---	2/	5.00
1947	3/35,253	---	---	---	3.76	5.97
1948	3/38,320	---	153	3,565	4.08	4.88
1949	3/40,784	11	1,865	6,282	3.96	4.10
1950	3/38,757	459	217	575	4.56	5.09
1951	3/45,853	369	4,008	1,843	5.00	4.82
1952	3/48,260	226	209	---	5.04	4.87
1953	3/52,761	1	1,821	2,665	4.84	5.19
1954 4/	3/59,106	917	---	4,486	4.92	5/4.35

1/ Season average prices received by farmers weighted by sales.

2/ Price support was mandatory at 90% of parity but since prices were so far above support levels, support rates were not announced.

3/ Includes production in minor rice-producing States (Missouri, South Carolina, Arizona and Florida) which are not included in the estimates of production of the Crop Reporting Board.

4/ Preliminary.

5/ Weighted by production...

Table 7.- Rice: Acreage planted, average 1950-54, annual 1954, and acreage allotment, 1955

State	Acreage planted		Allotment, 1955		
	Average		As percentage of		
	1950-54	1954	planted acreage		
	plus		Acreage	Average	1954
	diverted			1952-54	
	Acres	Acres	Acres	Percent	Percent
Arkansas	489,958	613,000	435,639	82.2	71.1
California	367,010	485,000	343,362	82.5	70.8
Louisiana	612,531	656,000	519,634	83.7	79.2
Texas	566,570	624,000	486,522	83.0	78.0
Mississippi	43,988	84,000	47,499	76.6	56.5
Missouri	3,306	9,020	3,905	82.8	43.3
South Carolina	2,150	3,242	2,224	68.7	68.6
Florida	1,166	755	1,075	61.7	142.4
Tennessee	566	821	593	79.2	72.2
Arizona	111	0	47	0	0
Illinois	6	30	8	80.0	26.7
United States	2,087,362	2,475,868	1,840,508	82.7	74.3

1/ The national acreage allotment is 1,859,099 acres, of which 1 percent or 18,591 acres is held in reserve at the national level.

Table 8.- Rice, in terms of milled: Food consumption in continental United States and shipments to Territories, 1934-53

Year beginning August	Continental United States food		U.S. shipments to Territories
	Total	Per capita	
	Million pounds	Pounds	
1934	729	5.7	314
1935	681	5.3	215
1936	783	6.0	330
1937	783	6.0	332
1938	734	5.6	290
1939	778	5.8	340
1940	773	5.8	335
1941	703	5.2	309
1942	734	5.6	260
1943	694	5.3	332
1944	632	4.8	338
1945	539	4.0	318
1946	660	4.6	290
1947	706	4.8	335
1948	732	4.9	338
1949	762	5.0	395
1950	874	5.7	348
1951	805	5.2	361
1952	840	5.3	360
1953	854	5.3	326

APPENDIX B

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

NOTICE OF STUDY OF RICE PROGRAM

Section 315 of the Agricultural Act of 1954 provides as follows:

The Secretary of Agriculture is directed to make a study of the various two-price systems of price support and marketing which could be made applicable to rice and to submit to Congress on or before March 1, 1955, a detailed report thereon. The Secretary may conduct such hearings and receive such statements and briefs in connection with such study as he deems appropriate.

Pursuant to such statute, the Secretary of Agriculture is making a study of the various two-price systems of price support and marketing which could be made applicable to rice with the view of submitting a detailed report thereon to the Congress on or before March 1, 1955.

Any interested person may submit any statement or brief concerning any two-price system of price support and marketing applicable to rice. All submissions should be addressed to the Secretary of Agriculture, U. S. Department of Agriculture, Washington 25, D. C. Submissions should be made as soon as possible but in no event later than January 1, 1955, in order that they may be analyzed thoroughly.

Done at Washington, D. C., this 22nd day of November, 1954.

/s/ Frederick V. Waugh
Frederick V. Waugh, Director, Agricultural
Economics Division, Marketing Research
and Statistics.

APPENDIX C

METHOD USED TO DETERMINE THE NATIONAL ACREAGE ALLOTMENT FOR THE 1955 RICE CROP

As determined in December 1954

Under provisions of the Agricultural Adjustment Act of 1938, as Amended

<u>Normal Supply</u>	<u>Thousand hundredweight</u> (unless otherwise noted)
1. Estimated domestic consumption, 1954-55	26,850
2. Estimated exports, 1955-56	26,000
3. Sum of items 1 and 2	52,850
4. Allowance for carryover (10 percent of item 3)	5,285
5. <u>Normal Supply</u> (Item 3 plus item 4)	58,135
<u>National Acreage Allotment</u>	
6. Estimated carryover on August 1, 1955	14,000
7. Indicated production needed in 1955 (Item 5 minus item 6)	44,135
8. National average yield per planted acre (1950-54)	(pounds) 2,374
9. <u>Acreage Allotment</u> indicated for 1955 (Item 7 divided by item 8)	1,859,099

APPENDIX D

METHOD USED TO DETERMINE THE NATIONAL MARKETING QUOTA LEVEL FOR THE 1955 RICE CROP

As determined in December 1954

Under provisions of the Agricultural Adjustment Act of 1938, as Amended

<u>Normal Supply and Marketing Quota Level</u>	<u>Thousand hundredweight</u> (unless otherwise noted)
1. Estimated domestic consumption, 1953-54 <u>1/</u>	25,620
2. Estimated exports, 1954-55 <u>1/</u>	26,000
3. Sum of items 1 and 2	51,620
4. Allowance for carryover (10 percent of item 3)	5,162
5. <u>Normal Supply</u> (Item 3 plus item 4)	56,782
6. <u>Marketing Quota Level</u> (110% of item 5)	62,460
<u>Total Supply and Supply Percentage</u>	
7. Carryover on August 1, 1954	7,557
8. Estimated production in 1954	58,950
9. Estimated imports in 1954-55	350
10. <u>Total Supply</u> (Sum of items 7, 8, and 9)	66,857
11. <u>Supply Percentage</u> (Item 10 divided by item 5)	(percent) <u>2/117.7</u>

1/ In establishing normal supply in the marketing quota determination items 1 and 2 are for one marketing year earlier than in the acreage allotment determination. In this, as in the case of allotments, the Secretary is permitted to make adjustments for current trends in consumption and unusual conditions as he may deem necessary.

2/ Marketing quota proclamation necessary when item 11 is over 110 percent, or when item 10 is in excess of item 6.

APPENDIX E

METHOD USED TO DETERMINE
THE MINIMUM SUPPORT PRICE FOR THE 1955 RICE CROP
Under provisions of the Agricultural Act of 1949 1/

Thousand hundredweight
(unless otherwise noted)

Normal Supply

1. Estimated domestic consumption, 1954-55	26,850
2. Estimated exports, 1955-56	26,000
3. Item 1 plus item 2	<u>52,850</u>
4. Allowance for carryover (10 percent of item 3)	5,285
5. <u>Normal Supply</u> (Item 3 plus item 4)	<u>58,135</u>

Total Supply

6. Estimated carryover on August 1, 1955	14,000
7. Assumed production 1955 <u>2/</u>	44,135
8. Estimated imports 1955-56	<u>350</u>
9. <u>Total Supply</u>	<u>58,485</u>

Minimum Support Price

10. Supply percentage (Item 9 divided by item 5) (percent) <u>3/</u>	100.6
11. Minimum support level (percent of parity)	90.0
12. Effective parity price, basis Jan. 15, 1955 <u>1/</u> (dollars)	5.46
13. <u>Minimum Support Price</u> (Item 11 times item 12) (dollars)	4.91

1/ Determination of preliminary minimum support is usually made sometime in February, prior to planting time, and final determination is made on or before August 1, at the beginning of the marketing year. The latest effective parity price is used in each case, but in no event is the dollar and cents level reduced below the announced minimum level prior to planting time.

2/ Production is assumed to be equal to the 1955 quota.

3/ The level of price support depends upon the supply percentage at the time price supports are determined. If the estimated total supply does not exceed the normal supply as of the beginning of the marketing year by more than 2 percent, the level of price support must not be less than 90 percent of parity, and for every 2 percent excess of the total supply above 102 percent of the normal supply, the minimum level of price support is reduced by 1 percent, but not less than 75 percent.

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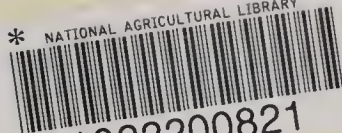
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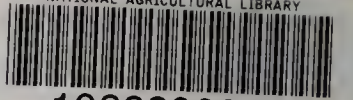
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